

Resource Conservation for Commercial Buildings



Global Resource Efficiency Services (GRES) is an environmental resource efficiency management company. The outcomes are improved management of resources, significant cost savings, and a healthier, safer environment.

Our clients save more in reduced utility costs (i.e. energy, water and waste) than the actual costs of implementing our program. Further to this, a typical project can generate 20% of the savings to the building's operating costs.

The Concept

To conduct resource efficiency upgrades on community buildings.

Financing

To provide EcoEquity financing for projects that will be paid back out of utility savings.

Project Management

To oversee all aspects of the upgrades for a client.

Assessment/Audit

To assess the potential for upgrades in the areas of lighting, heating, cooling, electrical, water and waste based on a 12 month historical utility report.

Retrofit Project

To conduct the building retrofit in an integrated fashion for a client.

Commissioning

To commission the upgrade to the necessary working standards.

Typical Project Plan

Task/Timeline	Month 1	Month 2	Month 3	Month 4
Approval	▬▬▬▬			
Financing	▬▬▬▬			
Project Management	▬▬▬▬	▬▬▬▬	▬▬▬▬	▬▬▬▬
Audit		▬▬		
Design		▬▬		
Retrofit Project			▬▬▬▬	
Commissioning				▬▬
Training				▬▬



Energy Plan

Assessment

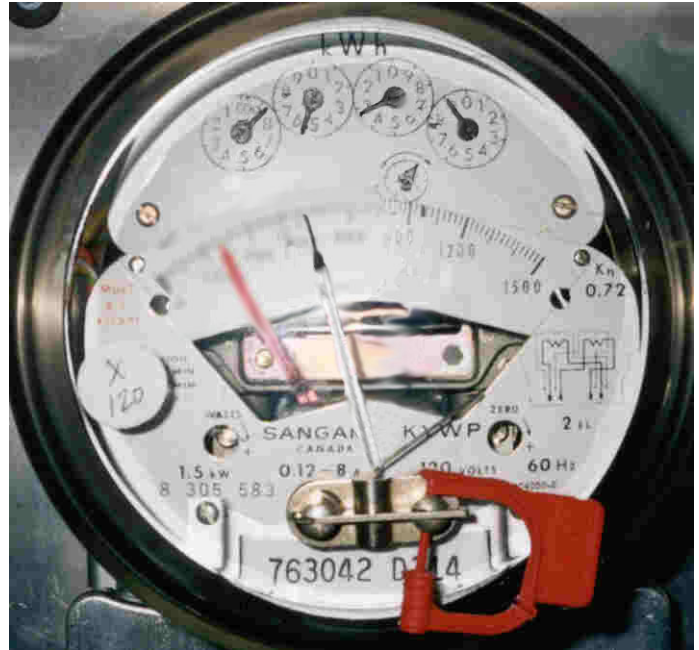
- Utility consumption audit
- Billing and meter verification

Efficiency Measures

- Electrical Efficiency Upgrades
- Optimization of heating and cooling plant systems
- Renewable energy {solar/geothermal}

Efficiency training

- Custodians
- General staff



Energy Upgrade Component	Typical % of Savings
Lighting	25-35%
Heating	10-20%
Ventilation	10%
Air conditioning	15%
Building envelope	varies
Motor	10%
Plug in equipment	10%
Billing and metering reviews	varies

Lighting Plan

Assessment

An assessment will occur to determine:

- Quantity and Quality of Illumination.
- Number of Luminaires (or Fixtures)
- Number of Lamps and Ballasts
- Maintenance practices
- Status of Control Systems



Efficiency Measures

- Extensive lighting savings
- Lighting quality is substantially improved
- Customized lighting solutions
- Reduce maintenance costs
- All materials are warrantied.

Efficiency training

- Building operators
- Custodians and cleaning procedures



Water Plan

Assessment

- Utility consumption audit
- Billing and meter verification

Efficiency Measures

- Domestic Hot Water Systems
- Toilets (Flush valve and tank-type)
- Urinals
- Flow Control Devices



Efficiency training

- Custodians
- General staff



Water Upgrade Component	Typical % of Savings
Fixture change outs	30-40%
Retrofit of fixtures	20-30%
Leak analysis	10%
Irrigation management	50-100%
Billing and metering analysis	Varies
Preventive maintenance	Varies

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